

Commonwealth Avenue Bridge Deck Replacement Project

Legislative and Stakeholder Briefing

April 13, 2017

Project Team

Contractor

Walsh Construction Company



Walsh Construction

Design Team

- HDR – Lead
- City Point Partners, LLC
- Fort Hill Infrastructure Services, LLC
- Kleinfelder, Inc.
- KM Chng Environmental, Inc.
- LTK Engineering Services
- McMahon Associates Inc.
- Nitsch Engineering, Inc.
- Regina Villa Associates, Inc.
- RM Engineering, Inc.



Background / Overview

- The Commonwealth Avenue Bridge Deck Replacement Project will use accelerated bridge construction to replace the full superstructure over two intensive construction windows: Summer 2017 (eastbound portion of the bridge) and Summer 2018 (westbound portion of the bridge)
- During Summer 2017 construction, there will be an 18 ½ day intensive closure window which will have significant impacts to local/regional vehicular traffic and Green Line/Commuter Rail travelers.
 - MBTA Green “B” Line – closed from Blandford Street to Babcock Street for 18 ½ days
 - Commonwealth Avenue Bridge – closed to private vehicular traffic for 17 ½ days
 - BU Bridge – closed to private vehicular traffic for 17 ½ days
 - MBTA Bus Routes CT2 and 47 – Detoured from normal routes for 17 ½ days
 - I-90 – all traffic on one side of I-90 for 9 ½ days (4 lanes in each direction to 2 in each direction during peak)
 - MBTA Commuter Rail (Worcester Line) – closed from Boston Landing to South Station for 2 weekends
 - Amtrak (Lake Shore Limited Line) – closed 2 weekends
- **This construction window will occur from July 26th – August 14th**
- This window was carefully selected timeframe to minimize traffic impacts, based on traffic volumes, MBTA ridership, Boston University summer break, and special events in the area.

Project History

- Initial discussions began in 2011 between MassDOT, Boston University, and cities of Boston/Brookline/Cambridge.
- MassDOT Board voted to approve \$81.8M design/build contract to Walsh Construction in May 2015.
- In May 2016, MassDOT learned that construction would be delayed several months. MassDOT cancelled the closure date for 2016, moving it to July/August 2017 and 2018.

Project Location



Project Need

- The bridge was originally constructed in 1965 and is structurally deficient; the concrete deck has deteriorated and the steel beams are corroded. The substructure was rehabilitated from 2014-2016 as a precursor to this project.
- Conventional construction would take an estimated 4-5 years with substantial lane closures/reductions on I-90 and on Commonwealth Ave.
- To maintain access for I-90 travelers during the closure window, an I-90 crossover will be utilized. Eastbound and westbound traffic will be on one side of I-90 while work on the bridge occurs above the other side of I-90.



Sequence of Work

- Beginning on Wednesday July 26, Green Line is powered down and track removed to prepare for demolition
- I-90 is reduced from 3 lanes to 2 on Friday night (July 28) to begin demolition on the eastbound span

- De-energize Green Line catenary and remove cables, existing track
- Implement I-90 crossover into westbound barrel (*All traffic on the westbound side of I-90*)
- Demolition of existing spans over Commuter Rail and I-90 eastbound
- Install new spans over Commuter Rail and I-90 eastbound



Sequence of Work

- Same process is repeated for the spans over I-90 westbound
- I-90 reopens with 3 lanes of capacity on Monday, August 7th (9 ½ days later) and 4 lanes August 28th

- Traffic is channelized into the eastbound barrel
(All traffic on the eastbound side of I-90)



- Demolition of existing span over I-90 westbound

- Install new spans over I-90 westbound

- Sidewalks / Paving



Project Schedule

Facility	Traffic Impact	Notes
MBTA Green "B" Line (Blandford St. to Babcock St.)	Closed from Blandford St. to Babcock St. for 18½ days	<i>Shuttle bus service between Blandford St. and Babcock St.</i>
MBTA Bus Routes CT2 and 47	Detoured from normal routes for 17 ½ days	<i>Detour maps will be provided</i>
Commonwealth Avenue (Packard's Corner to Kenmore)	Closed to private vehicular traffic for 17½ days	<i>Bridge open to only buses, emergency vehicles, pedestrians/bikes</i>
BU Bridge	Closed to private vehicular traffic for 17½ days	<i>Bridge open to only buses, emergency vehicles, pedestrians/bikes</i>
I-90	Traffic shift for 9½ days	<i>2 lanes each direction during peak period</i>
MBTA Commuter Rail (Worcester Line)	Closed from Boston Landing to South Station for 2 weekends	<i>Shuttle bus service from Boston Landing to Reservoir Station (Yawkey Way during Sox games)</i>
Amtrak (Lake Shore Line)	Closed for 2 weekends	<i>Shuttle bus service from Albany, NY to Boston</i>

	Wed	Thurs	*Fri*	*Sat*	*Sun*	*Mon*	*Tues*	*Wed*	*Thurs*	*Fri*	*Sat*	*Sun*	Mon	Tues	Wed	Thurs	Fri	Sat	Sun	Mon
	26-Jul	27-Jul	28-Jul	29-Jul	30-Jul	31-Jul	1-Aug	2-Aug	3-Aug	4-Aug	5-Aug	6-Aug	7-Aug	8-Aug	9-Aug	10-Aug	11-Aug	12-Aug	13-Aug	14-Aug
MBTA Green Line Bus Diversion	9:00 PM	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	5:00 AM
Comm Ave CLOSED to private vehicular traffic		7:00 PM	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	5:00 AM
BU Bridge CLOSED to private vehicular traffic		7:00 PM	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	5:00 AM
MBTA CT2 & 47 Detours		7:00 PM	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	5:00 AM
I-90 Lane Reductions			9:00 PM	x	x	x	x	x	x	x	x	x	5:00 AM							
Commuter Rail Bus Diversion				x	x						x	x								
Shuttle to Yawkey					Shuttle to Yawkey					Shuttle to Yawkey										

* = Red Sox Home Games

Project Video

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Project Video

- *The timeframe of July 26th to August 14th was selected to minimize impacts to the public*

 - ✓ Beginning work on a Wednesday limits the 9 ½ days crossover on I-90 to five weekdays
 - ✓ Lane reductions on I-90 will not begin until after July 4th holiday
 - ✓ Work will be completed prior to the traditional college move-in period that would begin on August 28th
 - ✓ Traffic volume on I-90 is lower in the summer months than in the fall, and at its lowest during late July/early August
 - ✓ Green Line ridership is at its lowest in late July/early August
 - ✓ I-90 will be restored to 4 lanes prior to Labor Day
 - ✓ Minimizes number of special events impacted in the area compared to other alternatives looked at

MBTA Service Impacts

Timeline: Wednesday, July 26 (9:00 pm) through Monday, August 14

Green Line B branch:

- Service suspended Babcock Street and Blandford Street Stations

Bus:

- Detour of CT2 and Route 47 bus service.
- Commonwealth Avenue (westbound) will remain open to buses in two directions

Commuter Rail:

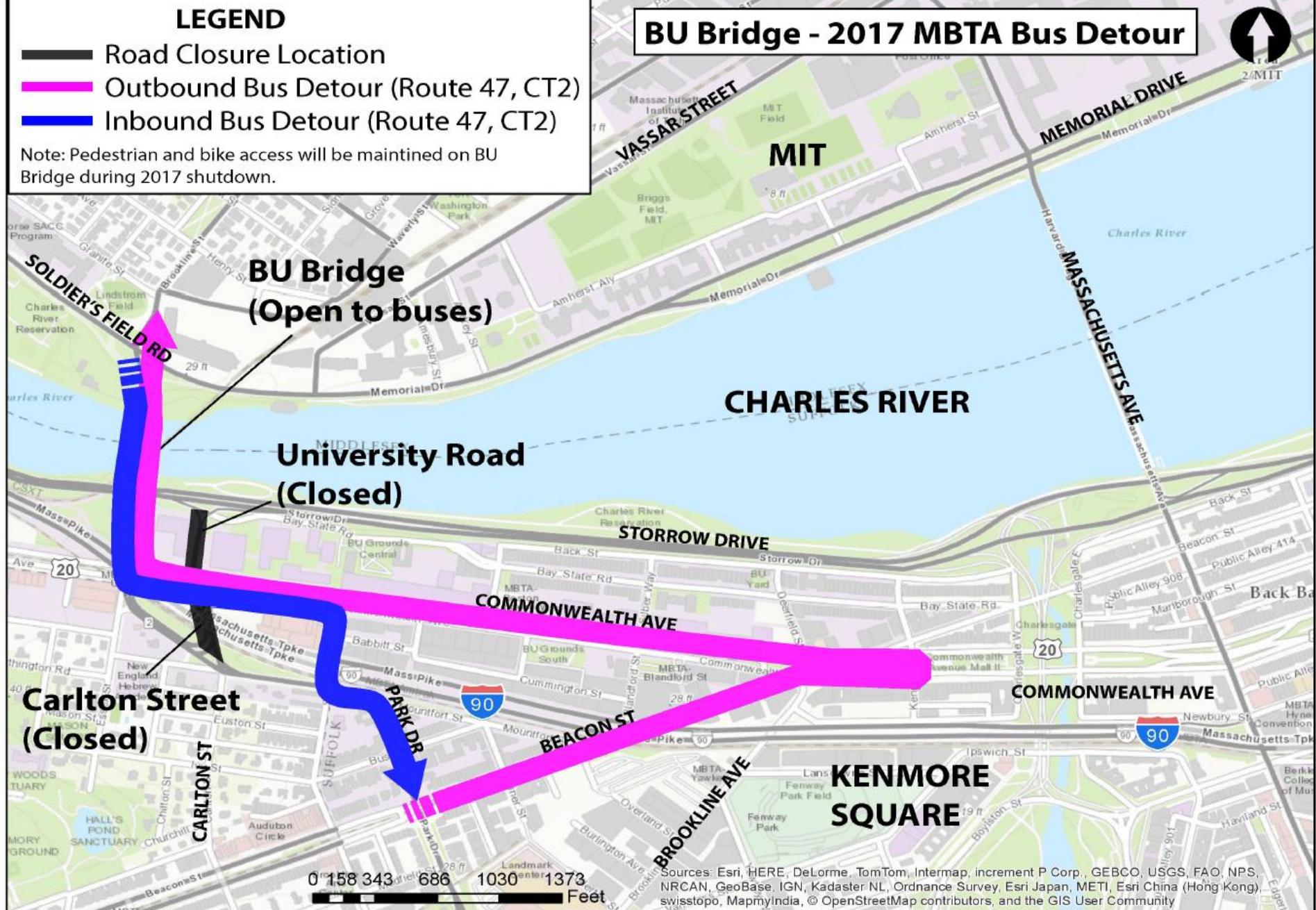
- Commuter Rail (Framingham/Worcester Line) service suspended between Boston Landing and South Station for two weekends (July 29-30 & August 5-6)

LEGEND

- Road Closure Location
- Outbound Bus Detour (Route 47, CT2)
- Inbound Bus Detour (Route 47, CT2)

Note: Pedestrian and bike access will be maintained on BU Bridge during 2017 shutdown.

BU Bridge - 2017 MBTA Bus Detour



Diversion Route

- **Buses will serve bus stops along Commonwealth Avenue at or near the following Green Line stations:**

➤ Inbound and Outbound

- Blandford Street
- BU East
- St. Paul Street
- Pleasant Street
- Babcock Street

➤ Outbound only

- BU Central
- BU West



Planned mitigation measures for each impacted mode

Green Line :

- Shuttle buses will operate in both directions on the **Green Line B branch** between Blandford Street and Babcock Street Stations
- Extra **Green Line C branch** (Cleveland Circle) service will be provided to increase capacity
- Extra **Green Line D branch** (Riverside) during Commuter Rail (Framingham/Worcester Line) weekend suspension and during Red Sox games/Fenway Park events

Bus:

- Additional buses added to the CT2 and Route 47 to help mitigate the impact of the bus detour and longer run times

Commuter Rail:

- Shuttle buses will operate in both directions on the Framingham/Worcester Line between Boston Landing and Reservoir (Yawkey Way during Red Sox/Fenway Park events)

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- MBTA/Keolis website, T-Alerts, and Twitter
 - Public Address announcements in stations and onboard trains
 - Additional station personnel deployed to provide customer assistance
 - Keolis Rail Mail
 - Station signage and car card advertisement deployed onboard trains and buses
 - Close coordination with local businesses including the Red Sox, Longwood Medical and Boston University
 - Press releases to local media
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MassDOT Highway Travel Impacts

- **I-90 “Dry Run” Crossover:**

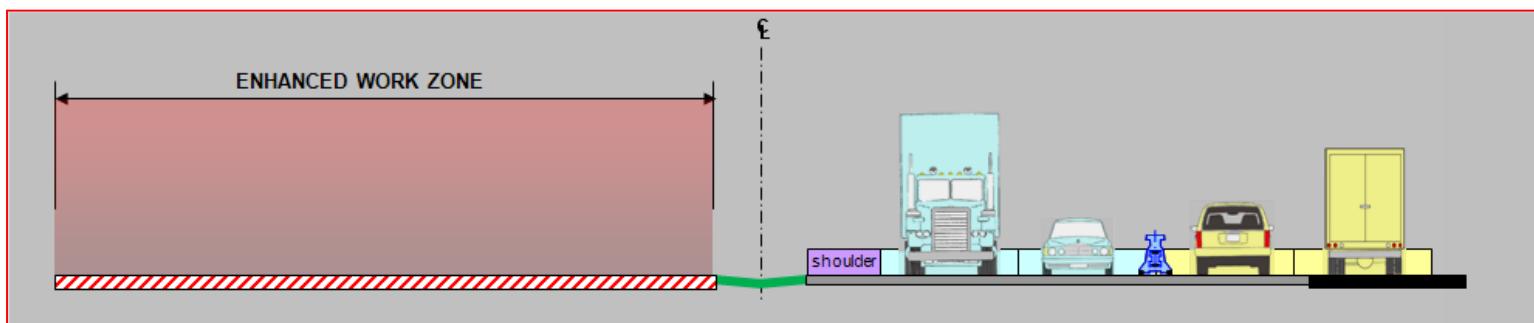
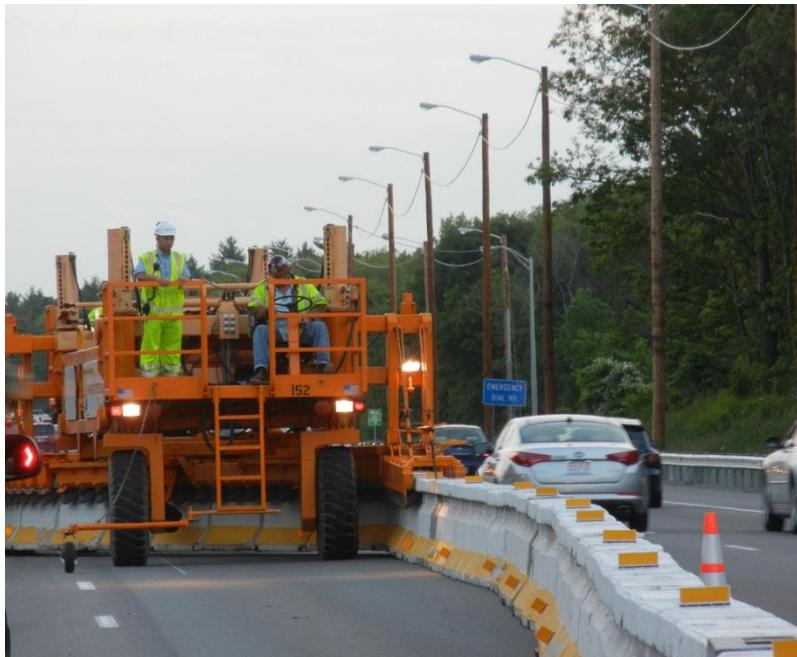
- Scheduled to take place on the weekend of June 3rd
- I-90 restricted from 4 lanes to 2 lanes beginning 11pm Friday PM – Sunday PM
- No impacts to Green Line, Commuter Rail or Comm Ave during this period
- Restored to 4 lanes by 5am Monday, June 5th

- **I-90 reduced from 4 lanes to 3 in each direction:**

- In order to construct a crane in the median of I-90, essential to demolition/construction operations, I-90 will be restricted from 4 lanes to 3 lanes in each direction beginning on July 7th;
- This will be the same lane configuration travelers saw during the substructure repairs that took place from August 2014 to June 2016
- I-90 will remain restricted to 3 lanes until August 28th

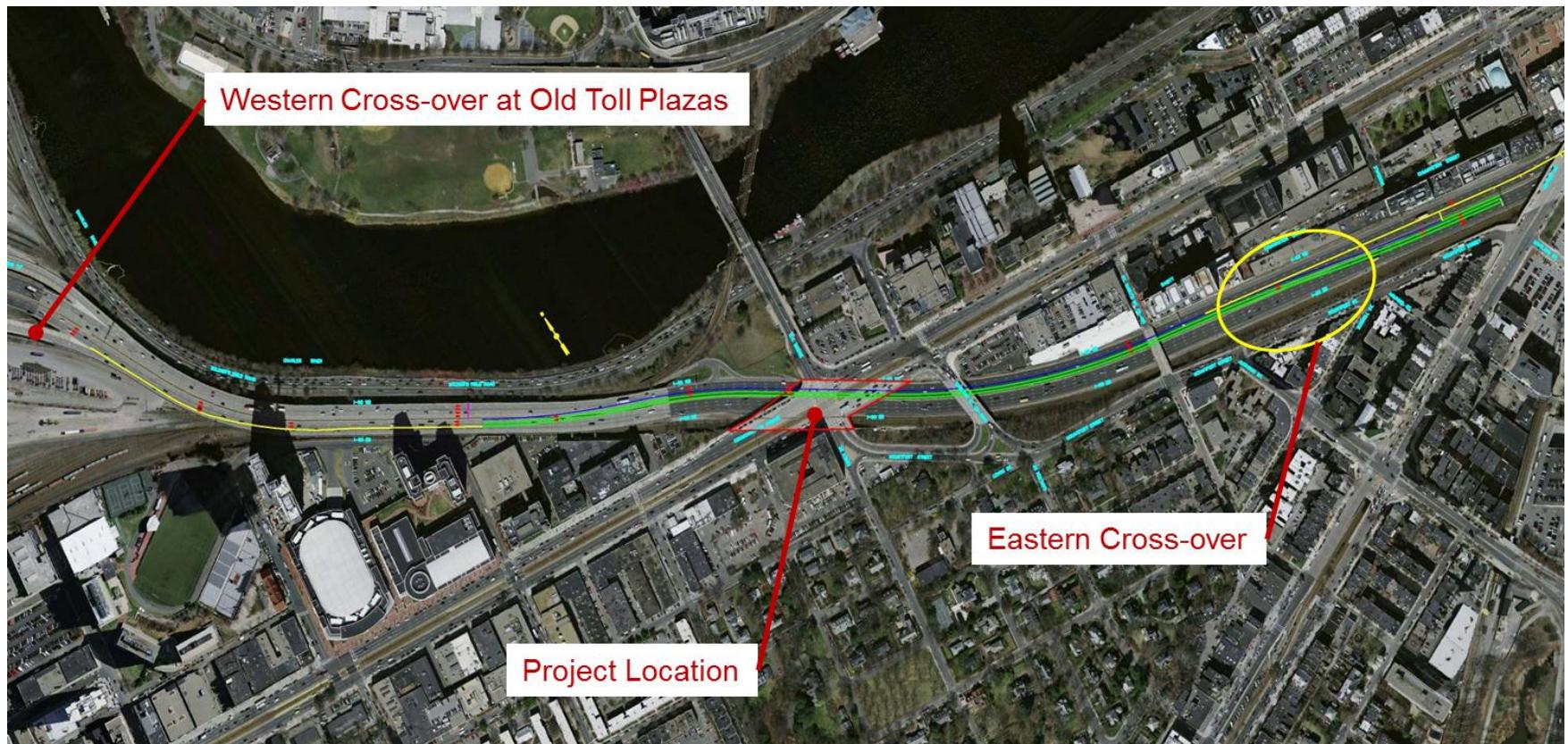
I-90 “Cross Over”

MassDOT will use “zipper barrier” and other traffic control devices to channelize traffic to one side of I-90



I-90 “Cross Over”

- Limits of the cross over are Allston/Brighton Toll Plaza and Beacon St overpass (~6600 feet)



Outreach and Communication

Outreach and Communication

Strategy will be to minimize traffic volume in the area

- Reduce
 - Seasonal reduction (Colleges/Universities/Schools on summer break)
 - Public outreach to make informed decisions
- Reroute
 - Alternate routes / avoid the area, if possible
- Re-mode
 - Shift to walking and biking
 - Encourage commuter rail ridership during weekdays vs. I-90 travel

Pre-Closure Outreach

- Public meetings and briefings for stakeholders
- Printed materials (brochures, flyers) available in multiple languages
- Door to Door Business Outreach
- Project Website (www.mass.gov/massdot/commavebridge)
- Email to E-ZPass / Letters to Pay By Plate
- Email Red Sox season ticket holders
- Lessons Learned from AET
- Working Group meets bi-weekly with 5 subcommittees

During Closure Outreach

- Email alerts
- Real Time Traffic Monitoring System active during shutdown
- Dedicated Project Email Address
- 24/7 Hotline for abutters (noise issues)

Immediate Next Steps

- Three Initial Public Meetings Scheduled

Monday, April 24, 6:30 p.m.

Boston University's Jacob Sleeper Auditorium (CGS 129)
871 Commonwealth Avenue, Boston

Thursday, April 27, 6:30 p.m.

Boston University's Jacob Sleeper Auditorium (CGS 129)
871 Commonwealth Avenue, Boston

Wednesday, May 3, 6:30 p.m.

Framingham Memorial Building (Town Hall), Blumer Room (Lower Level)
150 Concord Street, Framingham

- More information can be found at www.mass.gov/massdot/commavebridge

Sign up for email alerts

www.mass.gov/massdot/CommAveBridge

Questions?

**Contact Jim Kersten, MassDOT Legislative Liaison at
(857) 368-9041 or James.A.Kersten@dot.state.ma.us**